

NARSOC:
COST AS AN INDEPENDENT
VARIABLE (CAIV)
AND THE AIM-9X

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OUTLINE



- Background
- CAIV Principles
- Pre-Milestone I
- Milestone I - II
- Milestone II - III...Where do we go from here?
- Summary



Background



- The AIM-9X is a major modification to the Sidewinder Short Range Air-to-Air Missile which includes:
 - High off-boresight focal plane array infrared seeker
 - Highly maneuverable airframe
- Milestone I was in December, 1994
 - Designated CAIV Flagship Program August 95



Background (Cont.)



- Acquisition Strategy was for “full-and-open” competition for two-concept DEM/VAL, followed by “full-and-open” competition for E&MD.
 - FCT of ASRAAM concurrent with DEM/VAL
- E&MD contract includes three production lot options and Commitment Curve for next four lots.



CAIV PRINCIPLES



- Establish process for *cost / performance tradeoffs*
- Set realistic but *aggressive cost objectives*
- *Manage risk* to achieve cost, schedule and performance objectives
- Devise appropriate *metrics*
- *Incentivize* government and industry
- *Incentivize* reduction to O&S costs



Pre-Milestone I



- Cost and Operational Effectiveness Analysis indicated superiority could be regained with seeker / airframe while retaining:
 - Rocket Motor, Warhead, Target Detector

Tradeoffs, Risk



Milestone I - II



- CPIPT analysis of Government / Contractor specification review resulted in JORD changes. **Tradeoffs**
- Affordability IPT quarterly iteration of AUPC resulted in contractor- established targets. **Cost Targets, Metrics**
- Risk Identification and Mitigation Plans required from both contractors **Manage Risk**



Milestone I - II (Cont.)



- Obtained PDUSD (A&T) approval of quantifiable producibility metrics to ensure producibility considered in the design process.
 - Manufacturing Capability
 - Manufacturing Risk Assessment
 - Factory Transition
 - Design Stability

Metrics



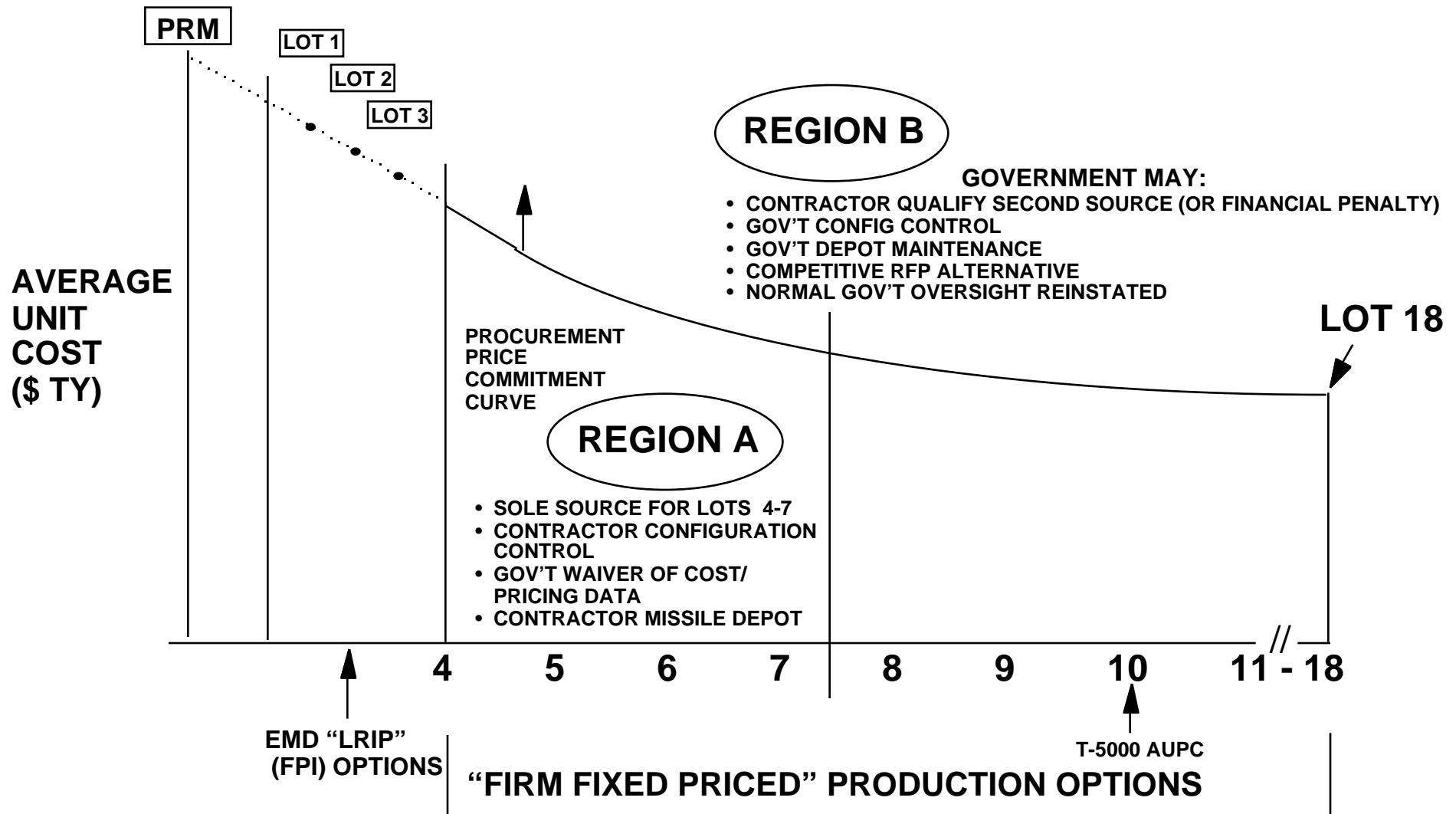
Milestone I - II (Cont)



- Procurement Price Commitment Curve, Award Fee and 0/100 share ratio below target AUPC incentivized (in competitive proposal) lower production costs.
 - Production 60% of LCC **Incentivization**
- High weighting of O&S in cost evaluation criteria in source selection incentivized lower O&S concepts. **Lower O&S**



Procurement Price Commitment Curve

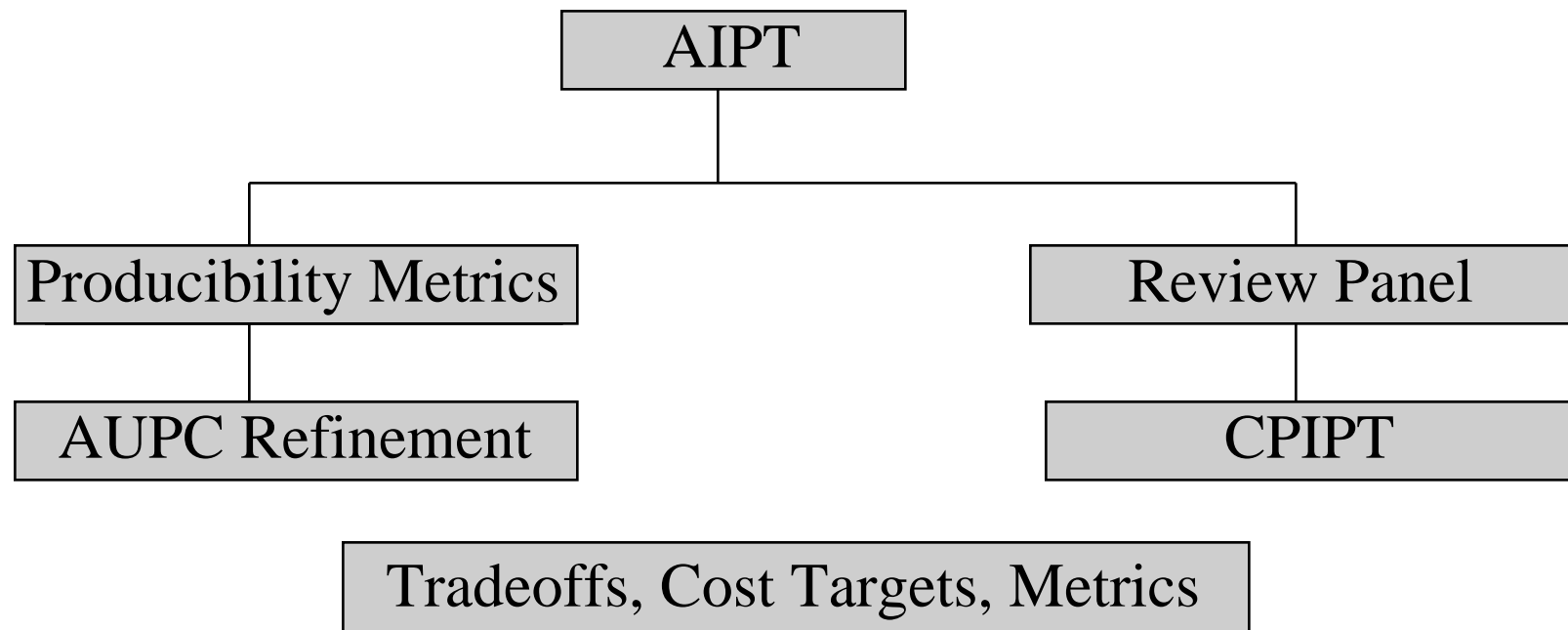




Milestone II - III



- Affordability IPT quarterly development of AUPC progress and Tradeoff initiatives:





Milestone II-III (Cont)



- Contractor “Risk Register” updated monthly
 - all risks identified as moderate or high require risk mitigation plan **Manage Risk**
- Award Fee Plan heavily incentivizes efforts to lowering production costs. **Incentives**
 - Government / Contractor Management IPT has joint goal of lowering “T1” price by 10%



Milestone II - III (Cont)



- Ten Year or 2000 hour warranty incentivizes contractor to consider reliability in design and production.

Incentive to lower O&S



AIM-9X CAIV Compliance



	Pre MS I	MS I - II	MS II-III
Tradeoffs	X	X	X
Cost Targets		X	X
Manage Risk	X	X	X
Metrics		X	X
Incentives		X	X



MS-II Development & Procurement Savings



PB97 (through 2017)

RDT&E

\$715.9

WPN / 3020

\$3,367.8

TOTAL

\$4083.7

Additions

-LAU-7

Savings

-Acquisition Strategy

-- Competition

-- PPCC

-Test Program Streamlining

-Producibility Program

PB97 (through 2017)

RDT&E

\$556.3

WPN / 3020

\$2,260

TOTAL

\$2,843.2



Summary



- Processes in place to capture key tenets of CAIV “philosophy” for AIM-9X
 - each program is unique and must tailor its own processes.

AIM-9X Mission

“Our Contractor / Government Team will deliver to the warfighter and affordable AIM-9X Weapons System that meets stated performance requirements within schedule”